Tidal River Largemouth Bass Outlook

2007

Regional drought persisting from the mid-1990's through late 2002 dramatically impacted our tidal river largemouth bass populations. Frustrated anglers experienced reduced catches of largemouth over several years – the reduced catch being a result of poor recruitment of young bass to adult populations during the drought.

The drought broke quite dramatically in late 2002, and our tidal river bass populations have rebounded rapidly since then. Consistently good recruitment has resulted in increased angler catches. By 2006, tidal bass populations were so strong that in many rivers, including the tidal Chickahominy, electrofishing catch rates were higher than any previous survey year – Electrofishing is a technique fisheries managers use to sample bass and other species of fish living along shorelines and other shallow water habitats in freshwater rivers and lakes.

Tidal Chickahominy and James

Good-to-excellent year-classes from 2004 through 2006 (Figure 1), and the resultant increase in electrofishing catch rates, indicate anglers will see a robust largemouth fishery in these tidal rivers over the next several years – with increased catches of 12 – 15 inch largemouth likely. In the tidal Chickahominy, it takes two years on average for bass to reach 12 inches, and about 3½ years for them to hit 15 inches.

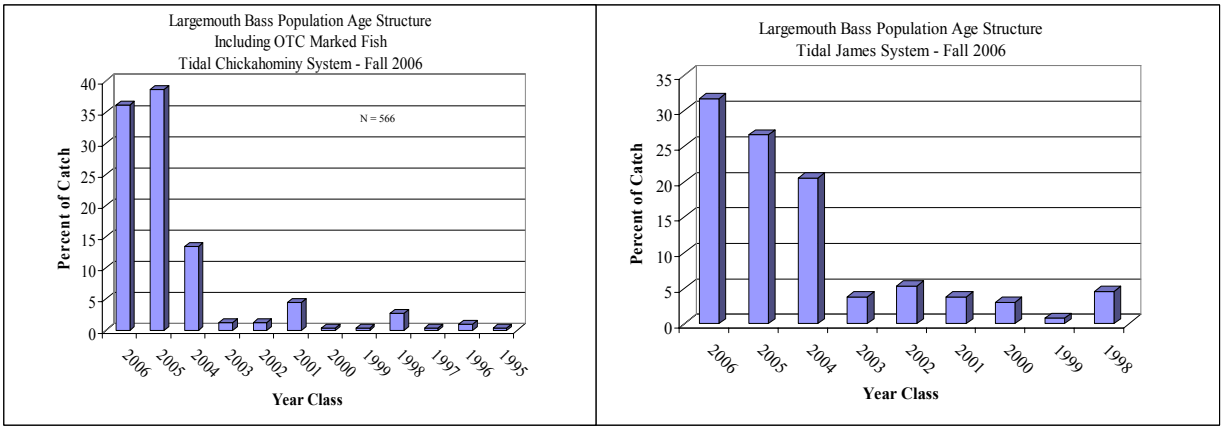

Figure 1. Age structure of tidal Chickahominy and James largemouth populations. Percent of electrofishing sample by year-class. Note, good year-classes from 2004 to 2006.

The one exception to the pattern of poor recruitment in the late 1990's, an extremely strong 1998 year-class, produced a number of 5 – 7 pound bass in the Chickahominy and James in 2006. A few lucky anglers may see some of these "big" fish in 2007, however, as the year-class continues to age and mortality takes its toll, the number of these fish available to anglers will decline. Strong 2004 and 2005 year classes will produce good numbers of 3-5 pound bass over the next couple of years.

As early as 2005, anglers were already benefiting from the improvement in these tidal bass populations. On the tidal Chickahominy, angler catch rates almost doubled between 2002 and 2005. In fact, the reported number of bass per angler-hour was higher than in any previous survey of the tidal Chickahominy, or in surveys of several other waters in Virginia (Figure 2).

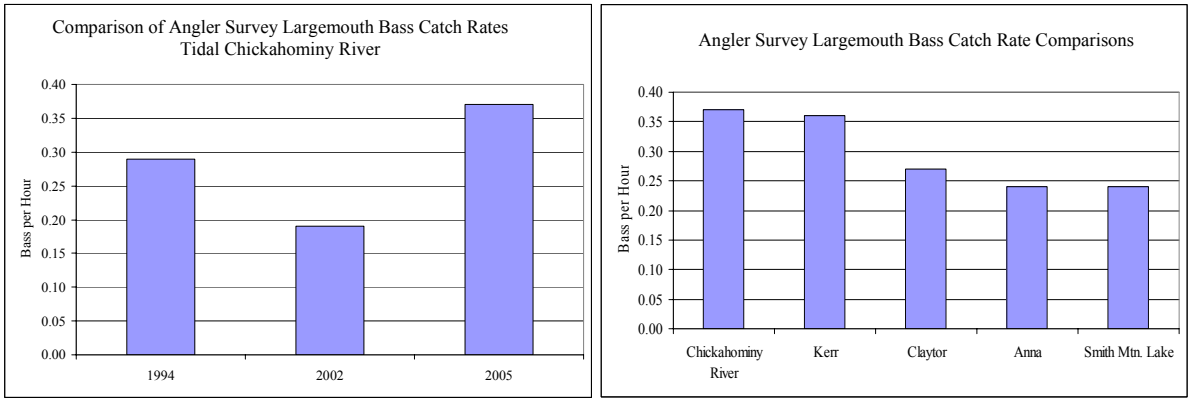

Figure 2. Reported angler catch rates (bass/angler-hour) during angler surveys on the tidal Chickahominy River, and other waters in Virginia (surveyed previous to 2005).

Anglers unfamiliar with the tidal James should be aware that some of the best largemouth fishing in this system can be found in tributaries from the Appomattox River down to Upper Chippokes Creek – tributaries below this being more likely to be impacted by drought related spikes in salinity. Fishing for largemouth in the mainstem James is best above Hopewell – below this there are only isolated pockets of suitable bass habitat available in the river.

Suitable largemouth habitat exists throughout much of the tidal Chickahominy and its tidal tributaries. Although declines in submerged aquatic vegetation in the lower Chickahominy occurred during the 1990's, this section of river has seen an increase in bass numbers in recent years, along with improving habitat conditions.

Pamunkey

A boat electrofishing survey of the Pamunkey conducted in September 2006 indicates recruitment of young bass to the adult population has been good since the drought broke in 2002 (Figure 3). If the number of young-of-year (YOY) in our samples is any indication, an unusually strong 2006 year-class will move into the fishery in 2008, providing anglers with increased catches of bass. Although electrofishing catch rates were dramatically improved over the previous survey (conducted in 2004), no largemouth over 3¼ pounds occurred in our samples during the 2006 survey – likely due to slow growth, and poor recruitment during the drought. Consistently good recruitment over the past several years may act to improve the size distribution of largemouth over the next few years. Largemouth bass growth in the Pamunkey continues to be slower than the tidal Chickahominy, James, or Rappahannock rivers.

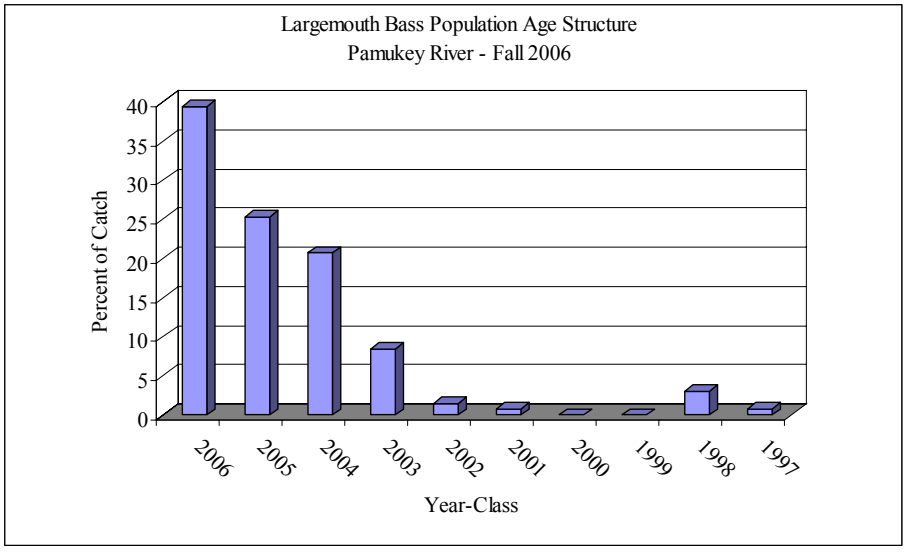

Figure 3. Pamunkey River largemouth population age structure. Percent of electrofishing sample by year-class.

Rappahannock

The Rappahannock has had historically slower growth and lower electrofishing catch rates for largemouth than either the Chickahominy or the James rivers. However, as in those tidal rivers, the tidal Rappahannock largemouth population has strong 2004 and 2005 year-classes moving into the fishery (Figure 4). Bass in the tidal Rappahannock generally reach 12 inches as 2 year olds, and hit 14 inches at age 3.

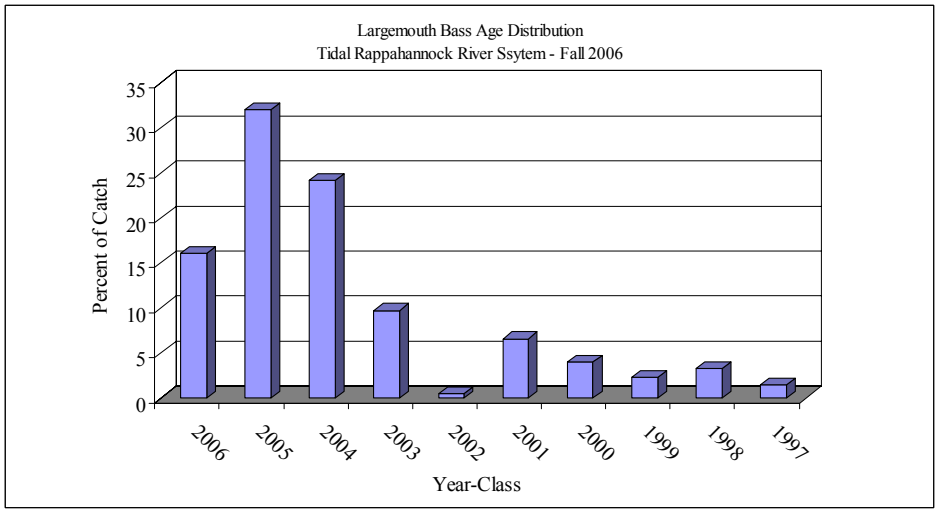

Figure 4. Tidal Rappahannock River largemouth population age structure. Percent of electrofishing sample by year-class. Note, extremely strong 2004 and 2005 year-classes.

Angler reports of good catches of bass match findings of VDGIF biologists, which include record electrofishing catch rates. Above Route 301, highest bass catch rates in electrofishing surveys were recorded from Hick's Landing downstream to near Port Royal.

Largemouth bass in the lower Rappahannock River, below Portobago Bay, have limited areas where suitable habitat and forage are available – shorelines adjacent to side-channel drop-offs, marsh back channels, and in tidal tributaries. However, recent electrofishing surveys indicate good numbers of largemouth can be found in these isolated pockets.

Summary

A comparison of total largemouth catch rates, and catch rates of bass 15 inches and larger, may help guide anglers planning a tidal river fishing trip (Figure 5).

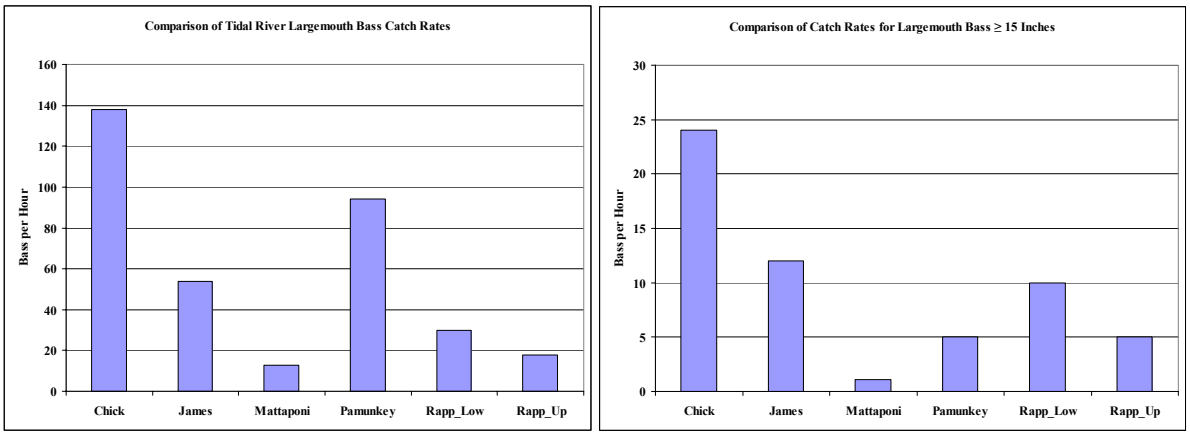

Figure 5. Comparison of largemouth catch rates and catch rates for bass ≥ 15 inches in recent electrofishing surveys of the tidal Chickahominy (Chick), tidal James (James), Mattaponi, Pamunkey, lower tidal Rappahannock (Rapp_Low), and upper tidal Rappahannock (Rapp_Up).

Tidal River Ranking

1 – Chickahominy: Angler catch rates much improved. Good numbers of 3 to 5 pound bass, with fish over 6 pounds in the system. With good recruitment, the fishery should continue to be robust over the next several years.

2 – James and tributaries: Although catch rates are lower than the tidal Chickahominy, this is a healthy largemouth fishery. Bass exhibit rapid growth, generally being 2 inches longer than those of similar age in the tidal Chickahominy.

3 – Pamunkey: This largemouth population experiences slower growth than the James, Chickahominy, or Rappahannock. Catch rates in 2006 were higher than in the recent past.

4 – Rappahannock: With slower growth and lower catch rates, this largemouth population has never had the national reputation of the tidal Chickahominy and James.

5 – Lower Dragon Run / Piankatank: This is a relatively small and inaccessible fishery, but recent surveys indicate stable recruitment, extremely high catch rates, and good numbers of largemouth over 15 inches available to those who seek them out.

6 – Mattaponi: Very low bass catch rates in recent electrofishing survey work, with largemouth concentrated from just above Aylett to just downstream of Walkerton.

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